CLAIMS

1/ A method of setting up a call matching a predetermined set of requested services and/or characteristics over a network which may optionally be a composite and multi-component network, the method being characterized in that it consists in subdividing said network into a plurality of domains (D1 to DM), with a negotiator unit (Ni) being associated with each domain (Di); in sending to at least one negotiator unit (Ni) a request for setting up a call together with a set of parameters defining the services and/or characteristics associated with the call to be set up; and, where appropriate, in setting up said call after determining appropriate available resources (Ri) in the various domains (Di) concerned and selecting those resources (Ri) that provide the best possible match with said set of services and/or characteristics.

2/ A method according to claim 1, in which each negotiator unit (Ni) is in communication firstly with the various resources (Ri) and service providers in the domain (Di) under consideration, whether connected directly or indirectly to said network or forming portions thereof, and secondly with the negotiator units (N1 to Ni - 1 and Ni + 1 to NM) of the other domains (D1 to Di - 1 and Di + 1 to DM), each negotiator unit (Ni) evaluating, selecting, and reserving, after reaching an agreement, the resources (Ri) and/or services available in the domain (Di) which is associated therewith and making it possible to contribute in optimal manner to setting up the intended call.

3/ A method according to claim 1 or claim 2, characterized in that it consists:

· in sending said set of requested services and/or characteristics to the negotiator unit (Ni) of each domain (Di) situated along the or any possible transmission path for the call to be set up, or having at

least one resource (Ri) which might be involved in said call;

· in determining via said negotiator units (Ni) and in each of the above-specified domains, which resources (Ri) are available and suitable for contributing to setting up and implementing said call in full or partial compliance with the requested set of services and/or characteristics;

· in collecting and evaluating the information supplied by the addressed negotiator units (Ni); and

· in setting up the call as a function of the results of said evaluation and after reserving suitable resources (Ri) in the domains (Di) concerned.

4/ A method according to any one of claims 1 to 3, characterized in that the set of services and/or characteristics requested for the call is set by the user (U1) that initiates the call, and in that the call setup request and the requests associated therewith are sent to the negotiator unit (Ni) of the domain (Di) in which the user issues the call request and the associated requests, which unit analyzes them and forwards them to the negotiator units (Ni) that might become involved.

5/ A method according to any one of claims 1 to 4, characterized in that the resources (Ri) available in the various domains (Di) are selected from the group formed by: transmission network resources; computation and data processing resource; connection resources; communications protocol resources; data and information playback resources; database resources or analogous information storage resources; interfacing resources; and other resources (Ri) depending on each of the negotiator units (Ni) under consideration.

6/ A method according to any one of claims 1 to 5, characterized in that the characteristics of the call to

be set up are selected from the group formed by the destination (U2), the nature and the quality of the call, the duration of the call, the time at which the call is to be set up if it is to be set in deferred time, the maximum cost per unit time, or the like.

7/ A method according to any one of claims 1 to 6, characterized in that it consists in weighting the various parameters making up the set of requested services and/or characteristics in terms of importance or of preference.

8/ A method according to any one of claims 1 to 7, characterized in that if the negotiator unit (Ni) of the domain in which or via which the user (U1) that issued the call setup request is connected to the network is not in a position to satisfy adequately the services and/or characteristics requested by said user (U1), then it submits to said user, for selection and agreement, one or more call setup options approximately satisfying the set of services and/or characteristics as initially requested, with this optionally taking place prior to reserving the resources (Ri) concerned or prior to confirming such reservation with the negotiator units (Ni) of the resources (Ri) or services concerned.

9/ A composite communications network enabling a call to be set up matching a predefined set of services and/or characteristics required by the initiator of the call setup request, the network being characterized in that said composite network is made up of a plurality of domains (D1 to DM) each of which is associated with a corresponding negotiator unit (Ni), the negotiator unit being capable of communicating firstly with the various communications and service resources (Ri) forming part of or connected to the domain (Di) of the unit (Ni), and secondly with the negotiator units (N1 to Ni - 1 and Ni +

1 to NM) of the other domains (D1 to Di - 1 and Di + 1 to Dm) making up said composite network, said domains (Di) being interconnected via appropriate interfaces.

10/ A network according to claim 9, characterized in that each domain (Di) constitutes a structurally and/or logically unitary entity, for example such as a homogenous network and the service providers connected thereto, the associated negotiator unit (Ni) being formed by or forming part of the server, or a similar managing computer unit, that controls or drives said entity.

11/ A network according to claim 9 or claim 10, characterized in that it is constituted by the Internet, and in that it implements the method according to any one of claims 1 to 6, on any request from a user (U1) of any one of its component domains (Di) in order to set up a call between said user and the desired destination(s) (U2) and/or to supply the requested service(s).

12/ An optionally mobile terminal, characterized by the fact that it forms a portion of a network according to any one of claims 9 to 11.